

RAS 5660

72-22-ISFSI - State Exhibit 198-1 Rec'd 6/4/02



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DOCKETED  
USNRC

November 30, 1998

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OFFICE OF THE SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

Dr. Kris P. Singh, President  
Holtec International  
555 Lincoln Drive  
Marlton, NJ 08555

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON HOLTEC  
INTERNATIONAL'S APPLICATION FOR CERTIFICATION OF THE HI-STORM  
CASK SYSTEM (TAC. NO. L22221)

Dear Dr. Singh:

The staff of the U.S. Nuclear Regulatory Commission (NRC) has completed its first round review of the Topical Safety Analysis Report (TSAR) for Holtec International's (Holtec's) HI-STORM Cask System and has prepared the enclosed Request for Additional Information (RAI). The poor quality of the HI-STORM TSAR indicates that Holtec may not have factored in all of the lessons learned from the completion of the HI-STAR 100 storage cask review. Several of the major omissions, errors, and apparent contradictions in the TSAR are of a fundamental nature.

It should be noted that this RAI considers only the HI-STORM overpack. Because of the large number of issues raised on this portion of the HI-STORM cask system, the staff intends to await resolution of these before providing additional comments on the transfer cask and any ancillary concerns. The staff believes that Holtec and the Holtec Users Group need to complete a comprehensive review and revision of the HI-STORM TSAR before the staff can continue its review of this application. This comprehensive review should include a certification of the compatibility of the HI-STAR and HI-STORM systems.

Among the major problems identified and detailed in the RAI are:

The welding details do not meet the requirements of the specified American Society of Mechanical Engineers design code.

The concrete design does not meet the requirements of ACI-349. ACI-318, the code proposed by Holtec is not acceptable.

An incorrect pad thickness was used to benchmark drop test analyses.

The postulated fire/accident/thermal analysis needs to be recalculated with appropriate assumptions. The results must be interpreted properly to account for excessive local concrete temperature and thermal gradients.

The complete-blockage-air-inlets accident needs to be re-analyzed to evaluate transient maximum inner concrete wall temperature response instead of the median concrete temperature. Again, appropriate assumptions regarding properties and correlations must be made in this calculation.

Template = SECY-028

SECY-02

CLEAR REGULATORY COMMISSION

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In the matter of PPS      PPS      Official Exh. No. 198  
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Applicant \_\_\_\_\_ IDENTIFIED   
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Other \_\_\_\_\_ REJECTED \_\_\_\_\_  
DATE 6/4/07 WITHDRAWN \_\_\_\_\_  
Clerk U.M. Witness \_\_\_\_\_

K. Singh

As you are aware, the staff normally allows a period of 60 days for the response to a first round RAI. Therefore, please provide your response to this RAI by February 1, 1999. If you believe that more time will be needed, please have your staff inform me of your proposed schedule as soon as possible so that relevant corrections may be made to NRC review schedules and affected parties can be notified of the delays. Please provide an electronic version of the TSAR and the RAI response document in WordPerfect 8.0 format, along with hard copies.

As discussed with Mr. Brian Gutherman of your staff, a meeting is scheduled for December 14, 1998, at 10:00 am to discuss and provide clarification to you and your staff on this RAI. If you have any questions, please feel free to contact me at 301-415-8518.

Please refer to TAC Number listed above in all future correspondence concerning the HI-STORM application.

Sincerely,

ORIGINAL SIGNED BY /s/

Mark S. Delligatti, Senior Project Manager  
Licensing and Inspection Directorate  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 72-1014

Enclosure: As Stated

cc: Holtec Owners Group

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